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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Gabi Muller

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CONNOLLY BOVE LODGE & HUTZ LLP

1875 EYE STREET, N.W.

SUITE 1100

WASHINGTON, DC 20006

EXAMINER

NGUYEN, VU ANH

ART UNIT

PAPER NUMBER

1796

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,889	Applicant(s) MULLER ET AL.	
	Examiner Vu Anh Nguyen	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 12-15 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 12-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/20/2008</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

The set of claims submitted along with the preliminary amendment filed 07/12/2006 is being examined. Claims 1-8 and 12-15 are pending.

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. Claim 8 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. This claim depends on claim 1. However, it pertains to a process whereas claim 1 recites a product. The product of claim 1 is not further defined in claim 8 (i.e., the scope of claim 1 is not further narrowed in claim 8).

Claim Rejections - 35 USC § 101/112

3. 35 U.S.C. 101 reads as follows:

Art Unit: 1796

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 13-15 are rejected under 35 U.S.C. 101 and under 35 U.S.C. 112, first paragraph because each of these claims recites a preparation process without specifying the necessary steps for performing the process. Since the claimed process is not well established, one skilled in the art clearly would not know how to use the claimed invention.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-8 and 12-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 has several issues. First, the term "obtainable" is indefinite since it is unclear whether a polymer obtained by a method other than free-radical polymerization is encompassed. If only polymer obtained by free-radical polymerization is intended, then the "obtainable" should be changed to "obtained". Second, the preamble refers to a polymer in singular form whereas the K value in line 10 refers to polymers in plural

Art Unit: 1796

form. It is therefore unclear as to what polymers are being referred to in line 10. Third (this issue also applies to claim 8), the last proviso in the claim makes little sense since it asserts a manipulation of an outcome when said outcome is already known (i.e., an attempt to control the K value of a polymer AFTER such polymer, having a definite K value, is already produced). Claim 2 is similarly indefinite for using "obtainable". The term "carboxylate groups" in claim 6 lack sufficient antecedent basis. Claims 13-15 are indefinite for the reasons mentioned in paragraph 4 above.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-8, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,306,484 to Potthoff-Karl et al. ('484 hereafter).

Art Unit: 1796

11. Corresponding to the limitations set forth in these claims, '484 discloses a hair setting composition comprising, as film formers, copolymers having a K value of 10-50 and obtained by free-radical polymerization of 75-99 wt% of tert-butyl acrylate and/or tert-butyl methacrylate, 1-25 wt% of acrylic acid and/or methacrylic acid, and 0-10 wt% of a comonomer; wherein the carboxyl groups of the copolymers are partially or completely neutralized (abstract). In a preferred embodiment, the copolymers comprise 85-98 wt% of tert-butyl acrylate, 2-15 wt% of methacrylic acid, and 0-5 wt% of the comonomer, which is selected from a very limited group that includes methyl acrylate ($T_g = 9^\circ\text{C}$), ethyl acrylate ($T_g = -21^\circ\text{C}$) and n-butyl acrylate ($T_g = -49^\circ\text{C}$) (col. 1, lines 56-68; col. 2, lines 1-5). The K value can be controlled by adjusting the polymerization conditions such as time and concentration of initiator, which may be viewed as a regulator. The more preferred K value is 15-35 (col. 2, lines 27-32). A process of preparing the hair setting composition is also taught (col. 2, from line 60).

12. Clearly, '484 teaches all the limitations set forth in these claims except that the prior art numbers (i.e., wt% and K value) and the claimed numbers, though highly overlapped, are not anticipatorily matched. However, it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to have modified the prior art composition by adjusting the composition and the K value of the copolymers, within the disclosed ranges, so as to optimize the property and performance of the resulting formulations.

Art Unit: 1796

13. Claims 1-8, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dausch et al. (WO02/38638). Note that USPN 7,015,294 ('294 hereafter) is being relied upon as an English equivalent of the WIPO publication.

14. Corresponding to the limitations set forth in these claims, '294 discloses acrylate polymers to be used as film formers in cosmetic formulations, the polymers, having a K value of 10-60, are obtained by free-radical polymerization of 30-99 wt% of tert-butyl acrylate and/or tert-butyl methacrylate, 1-28 wt% of acrylic acid and/or methacrylic acid, and 0-60 wt% of comonomer(s); wherein at least one of the comonomers forms a homopolymer having a T_g lower than 30°C; wherein the weight percents add up to 100%; and wherein the K value is controlled by using an alkanethiol-typed regulator (abstract). The carboxyl groups of the copolymers are partially or completely neutralized (col. 4, lines 1-4). In a preferred embodiment, the copolymers comprise 30-72 wt% of tert-butyl acrylate, 10-28 wt% of methacrylic acid, and 0-60 wt% of either ethyl acrylate alone or in combination with N-tert-butylacrylamide (col. 4, from line 50). A process of preparing a hair cosmetic composition is also taught (col. 6).

15. Clearly, '294 teaches all the limitations set forth in these claims except that the prior art numbers (i.e., wt% and K value) and the claimed numbers, though highly overlapped, are not anticipatorily matched. However, it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to have modified the prior art composition by adjusting the composition and the K value of the copolymers, within the disclosed ranges, so as to optimize the property and performance of the resulting formulations.

16. Claims 1-8, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,482,393 to Schehlmann et al. ('393, hereafter).

17. Corresponding to the limitations set forth in these claims, '393 discloses a hair setting composition comprising, as film formers, copolymers having a K value of 10-50 and obtained by free-radical polymerization of 30-72 wt% of tert-butyl acrylate and/or tert-butyl methacrylate, 10-28 wt% of acrylic acid and/or methacrylic acid, and 0-60 wt% of comonomer(s); wherein the carboxyl groups of the copolymers are partially or completely neutralized and wherein at least one of the comonomers forms a homopolymer having a T_g lower than 30°C (abstract). The K value can be controlled by adjusting the polymerization conditions such as time and concentration of initiator, or by using an alkanethiol-typed regulator (col. 2, lines 38-47). The more preferred K value is 15-40 (col. 2, line 39). A process of preparing the hair setting composition is also taught (col. 3).

18. Clearly, '393 teaches all the limitations set forth in these claims except that the prior art numbers (i.e., wt% and K value) and the claimed numbers, though highly overlapped, are not anticipatorily matched. However, it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to have modified the prior art composition by adjusting the composition and the K value of the copolymers, within the disclosed ranges, so as to optimize the property and performance of the resulting formulations.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vu Anh Nguyen whose telephone number is (571)270-5454. The examiner can normally be reached on M-F 8:00 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Vu Anh Nguyen
Examiner
Art Unit 1796

/David Wu/
Supervisory Patent Examiner, Art Unit 1796